

What is claimed is:

1. An acoustic damper for exhaust system comprising:
a tubular member configured to discharge exhaust from a machine having one of an
5 engine or a compressor and attenuate acoustic energy of a first frequency band; and
a resonator set configured to attenuate acoustic energy of a second frequency band,
which is different from the first frequency band and modulates the first frequency band.
2. The acoustic damper for exhaust system of claim 1, wherein:
10 the resonator set comprises at least two resonators;
each of the resonators has a first end opening to an inner face of the tubular member
and a closed second end; and
the resonators have different lengths.
3. The acoustic damper for exhaust system of claim 1, wherein:
15 the resonator set comprises at least one resonator; and
the resonator has a first end opening to an inner face of the tubular member and a
closed second end including a plane that is not in parallel with the virtual plane of the first end.
4. The acoustic damper for exhaust system of claim 1, wherein:
20 the resonator set comprises at least one resonator; and
each end of the resonator is open to an inner face of the tubular member.
5. The acoustic damper for exhaust system of claim 2, wherein each of the
25 resonators comprises noise absorbing material and a scatter preventive part.
6. The acoustic damper for exhaust system of claim 3, wherein each of the
resonators comprises noise absorbing material and a scatter preventive part.
7. The acoustic damper for exhaust system of claim 4, wherein each of the
30 resonators comprises noise absorbing material and a scatter preventive part.

8. The acoustic damper for exhaust system of claim 1, wherein the resonator set is arranged at an exhaust upstream side in a muffler connected to an end of the tubular member.

9. The acoustic damper for exhaust system of claim 2, wherein the resonator set is
5 arranged at an exhaust upstream side in a muffler connected to an end of the tubular member.

10. The acoustic damper for exhaust system of claim 3, wherein the resonator set is arranged at an exhaust upstream side in a muffler connected to an end of the tubular member.

10 11. The acoustic damper for exhaust system of claim 9, wherein the resonator set is formed on a front end plate of the muffler.

12. The acoustic damper for exhaust system of claim 10, wherein the resonator set is formed on a front end plate of the muffler.

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13. The acoustic damper for exhaust system of claim 4, wherein the resonator set is arranged at an exhaust upstream side in a muffler connected to an end of the tubular member.

14. The acoustic damper for exhaust system of claim 9, wherein each of the
20 resonators comprises noise absorbing material and a scatter preventive part.

15. The acoustic damper for exhaust system of claim 10, wherein each of the resonators comprises noise absorbing material and a scatter preventive part.

25 16. The acoustic damper for exhaust system of claim 13, wherein each of the resonators comprises noise absorbing material and a scatter preventive part.